Atmospheric Rossby waves and Jet Dynamics, and their Impacts on Weather and Climate events

This session will have two events, both on Wednesday 6th May:

- EGU live text-based chat from 08.30-10.15am CEST (GMT+2).
- Webinar from 16.00-18.00 CEST (GMT+2) (https://washington.zoom.us/j/94218785159?pwd=ZDZVQkVmeSs0aXNQMTNYUXRxOHlZUT09) with an introduction, 4 live presentations, and time for questions and discussion. More details are given on the last page of this document

In addition to these specific events we encourage you to explore the session displays (https://meetingorganizer.copernicus.org/EGU2020/displays/36862), and make comments or questions to the authors.

During the text-based chat the displays will be discussed in the order given below, with time for general questions/discussion between each section. Presenting authors, please have a 3-5 sentence summary of the highlights of your research ready to copy and paste into the chat when requested.

Section 1: Theory and Mechanisms I

Authors	Title
Volkmar Wirth	Waveguidability of idealized midlatitude jets and the limitations of ray tracing theory
Franziska Teubler and Michael Riemer	Dynamical Evolution of Troughs and Ridges within Rossby Wave Packets: A Composite Study
Wolfgang Wicker and Richard Greatbatch	A more complete Rossby wave source
Ben Harvey and John Methven	Diabatic generation of negative potential vorticity and its impact on the jet stream
Matthew Patterson, Tim Woollings, and Tom Bracegirdle	The influence of Antarctic topography on jet streams and Rossby waves in the Southern Hemisphere.
Emanuele Di Carlo, Paolo Ruggieri, Paolo Davini, Stefano Tibaldi, and Susanna Corti	Effects of mean state of climate models on the response to prescribed forcing: Sensitivity experiments with the SPEEDY general circulation model.
Todd Mooring and Marianna Linz	Investigating quasi-resonant Rossby waves with an idealized general circulation model

Section 2: Theory and Mechanisms II

Authors	Title
Olivia Martius, Kathrin Wehrli, and Sonia Seneviratne	Local and remote Rossby wave responses to an anomalously dry or wet Australian continent
Dominic Jones, John Methven, Tom Frame, and Paul Berrisford	Finding Dynamical Modes of Atmospheric Variability Using Conservation Properties

Rishav Goyal, Martin Jucker, Alex Sen Gupta, and Matthew England	Why is there a Zonal Wave 3 pattern in the Southern Hemisphere extratropical circulation?
Stephan Pfahl, Daniel Steinfeld, Maxi Boettcher, and Richard Forbes	The sensitivity of atmospheric blocking to changes in upstream latent heating
Li Dong and Stephen Colucci	Static Stability Associated with Southern Hemisphere Blocking Onsets
Jacopo Riboldi, François Lott, Fabio D'Andrea, and Gwendal RIvière	A daily estimate of phase speed to explore the link between Arctic Amplification and Rossby waves
Kevin Bowley and Melissa Gervais	Rossby wave breaking through the 21st century in a global climate model

Section 3: Impacts

Authors	Title
Federico Grazzini, Georgios Fragkoulidis, Franziska Teubler, Volkmar Wirth, and George Craig	Rossby wave packets associated with extreme precipitation events over Northern-Italy
Syed Mubashshir Ali, Olivia Martius, and Matthias Röthlisberger	Are Recurrent Rossby wave packets linked to persistent extreme weather events in the Southern Hemisphere?
Zakieh Alizadeh, Alireza Mohebalhojeh, Farhang Ahmadi-Givi, Mohammad Mirzaei, and Sakineh Khansalari	Zakieh Alizadeh, Alireza Mohebalhojeh, Farhang Ahmadi-Givi, Mohammad Mirzaei, and Sakineh Khansalari
Nabeela Sadaf, Yanluan Lin, and Wenhao Dong	Atmospheric blocking modulates the odds of heavy precipitation over Pakistan
Georgios Fragkoulidis and Volkmar Wirth	Local diagnostics of Rossby wave packet properties – Seasonal variability and their role in temperature extremes
Dominik Laux, Lisa Küchelbacher, Sabine Wüst, and Michael Bittner	First hints for the influence of planetary waves on extreme temperature events with a focus on Bavaria and the Alpine Region
Lidiia Popova and Inna Khomenko	Links of Atmospheric Blocking to Temperature Extremes over Ukraine
Philipp Zschenderlein, Stephan Pfahl, Heini Wernli, and Andreas H. Fink	A Lagrangian analysis of upper-tropospheric anticyclones associated with heat waves in Europe
Rachel White, Chloé Prodhomme, Georgios Fragkoulidis, Stefano Materia, and Constantin Ardilouze	Heatwaves and Predictability - the Role of Rossby Waves and Atmospheric Waveguides
Giorgia Di Capua, Kai Kornhuber, Eftychia Rousi, Sarah Sparrow, David Wallom, and Dim Coumou	Wave-resonance fingerprint in the 2010 summer: a modelling experiment

Atmospheric Rossby Waves and Jet Dynamics webinar
We invite you to a webinar on Atmospheric Rossby waves and jet dynamics on Wednesday May 6th from 16.00 - 18.00 CEST (GMT+2).
To join, please follow this link: https://washington.zoom.us/j/94218785159?pwd=ZDZVQkVmeSs0aXNQMTNYUXRxOHlZUT09

We are pleased to announce the following speakers and topics:
Kevin Bowley: Rossby wave breaking through the 21st century in a global climate model
Jacopo Riboldi: A daily estimate of phase speed to explore the link between Arctic Amplification and Rossby waves
Syed Mubashshir Ali: Are Recurrent Rossby wave packets (RRWPs) linked to persistent extreme weather events?
Pedram Hassanzadeh: Size of the atmospheric blocks: Scaling law and response to climate change

Each speaker will present for approximately 15 minutes; there will be time for questions and discussion after each talk, and time for a more general discussion at the end of the webinar.

To join this Zoom webinar please follow this link:
https://washington.zoom.us/j/94218785159?pwd=ZDZVQkVmeSs0aXNQMTNYUXRxOHlZUT09

We recommend you download the zoom app for best functionality, but the webinar will also be accessible through a web browser, and more options for joining audio are given below.

Topic: Rossby waves and Jet Dynamics webinar
Time: May 6, 2020 04:00 PM Madrid

Join Zoom Meeting
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